



### VP03

#### Mini PCNL as a mininvasive treatment's option of kidney's stone – First experience from Czech Republic

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**Objective:** To evaluate the contribution of mini PCNL for the selected group of patients with calico and pyelolithiasis.

**Material and Methods:** Revolutionary changes in the treatment of urolithiasis brought scientific and technical progress and discovery of a focused extracorporeal shock waves (ESWL method) and the development of endoscopic surgical techniques (PCNL, ureteronescopy and laparoscopy). This has shifted the focus of treatment of urolithiasis in minimally invasive surgery. The current percentage of conventional open surgical techniques in the treatment of urinary calculi is only 2-5%.

In the period from April to June 2014 we treated in total 6 of patients with nephrolithiasis. These were selected by a group of patients with urinary tract stones in the size of 14-21 mm, it means on the boundary indication of shock waves lithotripsy, respectively PCNL. For all patients prior to puncture the hollow system were cathetrized by mono J stent.

**Results:** The mean operation time was 75 min (55-94 min.) In five patients was used tubeless method. Before finishing of PCNL we visually checked puncture channel and in the case of bleeding's arteries they were selectively coagulated. In one patient was nephrostomy left for two days. For the crushing of the stone we used either sonoprobe or HoYAG laser, followed by extraction of the stone fragments. Stone free rate reached 90%. The total duration of hospitalization was 3.9 days on average, and even no one of the patients had significant decrease in hemoglobin or other serious complications.

**Conclusion:** MiniPCNL access to the kidney is the method of choice in the treatment of stones in the size of 25 mm in indicated patients. Significantly shorter hospital stay and per and postoperative complications allows rapid return of patients to normal life.